

REMARKS

Claims 1 through 15 are pending in this application.

I. Claim Rejections - 35 USC § 102

Claims 1-15 are rejected under 35 U.S.C. 102(e) as being anticipated by Cheney et al. U.S. Pat. No. 6,519,283 (hereinafter Cheney). The Applicant respectfully traverses.

No claim is anticipated under 35 U.S.C. §102 (b) unless all of the elements are found in exactly the same situation and united in the same way in a single prior art reference. As mentioned in the MPEP §2131, "a claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). Every element must be literally present, arranged as in the claim. *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 9 USPQ2d 1913, 1920 (CAFC 1989). The identical invention must be shown in as complete detail as is contained in the patent claim. *Id.*, "All words in a claim must be considered in judging the patentability of that claim against the prior art." *In re Wilson*, 424 F.2d 1382, 165 USPQ 494, 496 (CCPA 1970), and MPEP 2143.03.

1. **Cheney fails to disclose an outputting unit of the present invention as related with the signal dispensing unit and the signal processing unit (e.g., claims 1, 10).**

a. Cheney fails to disclose an outputting unit for outputting:

an analog personal computer signal generated from the signal dispensing unit in response to a control signal for displaying only the personal computer signal, (lines 9-11 of claim 1) and outputting an output signal of the signal processing unit in response to a control signal for displaying the personal computer signal and the first signal in picture-in-picture format (lines 11-12),

where the analog personal computer signal is from the signal dispensing unit for dispensing an output signal output from a personal computer in the form of an analog or digital signal (lines 2-3);

and where the output signal of the signal processing unit is in picture-picture format (lines 4-8).

The Examiner on page 2-3 of paper no. 8 referred to figures 2-5; column 3, lines 22-40; column 5; column 6, lines 7-25; column 7, lines 19-37; column 6, lines 25-67, column 7, lines 19-37; column 7, lines 1-37 of Cheney.

However, looking at col. 7, Cheney states that the 2:1 multiplexer MUX 202 has one input for the decompressed video derived from the MPEG stream and a second input that has the uncompressed video which is “the analog (or digital) signal received through DMSD 105”, where the DMSD is the digital multi-standard decoder. The MUX 202 must have the same type signal in order to multiplex the signals. The decompressed MPEG signal is in a digital format, therefore the uncompressed video must also be in digital format or at some point converted into digital format from the original analog. Otherwise, if one is digital and the other is analog, the timing would be

off, and it would be impossible to multiplex the two types of signals in the MUX 202. Therefore, the MUX 202 is receiving only digital type signals.

Col. 8, lines 29-32 of Cheney supports the above, by stating, “a digital multi-standard decoder (DMSD) chip which then digitizes the incoming video and sends the digitized video to the integrated decode system for blending of video signals and mixing of graphics.” Therefore, both inputs are digital in order for the multiplexer MUX 202 to properly work.

Therefore, what Cheney is actually referring to is the “original analog signal” coming from the uncompressed video which is then digitized for the MUX. After the MUX multiplexes the signals into a single signal, the output of the MUX has to be converted back into analog as shown for example by reference 59 of figure 2 of Cheney which does a Digital to Analog conversion for the video display. In col. 6, lines 46-50, Cheney states that digital to analog conversion of the video signal (the decompressed MPEG) occurs prior to output to the television. Therefore, Cheney still processes all of the signals (the decompressed video alone or the uncompressed video alone or the blended or multiplexed output of the two signals), thereby reducing the resolution as compared to the present invention.

The present invention, on the other hand, outputs to the monitor, the analog personal computer signal from the PC and the processed picture and picture formatted signal from the signal processing unit, through the outputting unit as claimed in claim 1. Meanwhile, in Cheney, the original analog signal from the uncompressed signal is converted twice by from analog to digital and then finally from digital to analog for the final analog signal because of the multiplexer 202.

As stated in the description of the related art (paragraph 0005), the present invention clearly

mentions this problem with the related art such as Cheney, "To realize the PIP function in the CDT monitor, a scaler integrated circuit (IC) that is used in the LCD monitor is needed. However, when the scaler IC is used, a signal is displayed on the CDT screen after being converted into a digital signal, processed with a PIP process in the scaler IC, and then converted back into an analog signal. During these processes, screen image quality may be degraded."

b. The Examiner stated on pages 7-8 in the remarks section of paper no. 8 that the Applicant argues that the outputting unit outputs either the "un-processed" personal computer signal generated from the signal dispensing unit or the picture-in-picture formatted signal from the signal processing unit, but that, this argument is NOT exactly found in the claim 1 as a claim limitation.

The Applicant respectfully disagrees in that the claim specifically states, *an outputting unit for outputting an analog personal computer signal generated from the signal dispensing unit, and outputting an output signal of the signal processing unit*, where the analog output from the personal computer is from the signal dispensing unit which is not processed and the output from the signal processing unit has gone through the picture-in-picture signal formatting as mentioned specifically in claim 1 and supported by figure 2 of the present invention.

c. However, the Examiner further states, as can be clearly seen in column 1 and 2 of Cheney, Cheney teaches displaying the computer graphics image and the video image in multiple screens simultaneously or in picture-in-picture formats, and, in column 7, Cheney teaches

pixel select control selecting one of the computer signal or the TV signal and then blended with the computer graphics signal. Therefore, the Examiner states that Cheney teaches an outputting unit (Fig. 5) outputting the output signal of the personal computer signal (forwarding uncompressed signal for display in mode 2) and outputting an output signal of the signal processing unit in response to a control signal for displaying personal computer signal and the first signal in picture-in-picture format (supporting picture-in-picture display in mode 3), and that Cheney therefore teaches that the uncompressed signal (computer signal) can be displayed independently from the compressed signal (TV signal).

However, as mentioned above, although the MUX can select the signals, the MUX uses digital signals in order to multiplex the signals or select between. Therefore, at some point before the MUX, *e.g.* DMSD 105, an analog input is converted into a digital format for multiplexing.

Even if only the analog signal from the PC is selected for display, there has to be a process of changing the analog signal to digital for manipulation by the MUX 202 and then the digital output then must be converted back to analog for display. This is the limitation created by using the MUX 202 for both selection and multiplexing.

2. Cheney fails to disclose separate signal processing and outputting units (*e.g.*, claim 1) and thereby having reduced image quality.

Cheney, as mentioned by the Examiner has the MUX 202 doing both the picture in picture processing and switching or outputting of the signals. Therefore, since both are done in MUX 202, the signals as shown above, must be in a single type of format, and therefore, this increases the

number of D/A or A/D conversion, thus reducing the image quality.

On the other hand, the present invention, has a separate signal processing unit and a separate outputting unit that takes the separate signals from the signal processing unit and signal-dispensing unit.

As mentioned in the MPEP §2131, Every element must be literally present, arranged as in the claim. *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 9 USPQ2d 1913, 1920 (CAFC 1989). The identical invention must be shown in as complete detail as is contained in the patent claim. *Id.*

3. Cheney fails to disclose a signal conversion unit (e.g., D/A converter) performing a conversion of the picture-in-picture signal output from the signal processing unit into an analog signal before the signal is output from the outputting unit (e.g., claim 2).

In paper no. 8, pages 9-10, the Examiner stated that Cheney clearly teaches a signal conversion unit (which is either the MUX 202 itself or the D/A conversion unit incorporated in figure 2 wherein the outputting unit comprising multiple blocks as indicated in figure 2), and so the Examiner states that in any case, Cheney clearly meets the claim limitation of "a signal conversion unit" and the signal has to be converted before a signal is output from the outputting unit such as a television.

Respectfully, the Examiner has been in inconsistent in the application of the rejection. Specifically, on page 8 of paper no. 8, the Examiner told the Applicant, "Therefore, Cheney teaches an outputting unit (Fig. 5)..." Figure 5 has only the 2:1 multiplexer MUX 202 and the OSD blend.

However, on page 9-10, now the Examiner is stating that the outputting unit is the television.

Now the Examiner is stating that the multiplexer 202 or the D/A converter of figure 2 is also the signal conversion unit which is separate from the outputting unit.

Unfortunately, because of the inconsistent rejection, a *prima facie* anticipation rejection would be improper here.

Even if the Applicant were to assume that the D/A converter from figure 2 is the signal converter, but then clearly it is not converting before the outputting unit. The outputting as claimed cannot be the display device as the "television" fails to disclose the elements of the outputting unit. Moreover, the display device is separately claimed.

Col. 6, lines 1-50 only states that the digital to analog conversion is made prior to output to the television system and not *a signal conversion unit for converting the picture-in-picture signal output from the signal processing unit into an analog signal before a signal is output from the outputting unit* and as shown above, the television system cannot also be the outputting unit.

The Examiner further stated on page 10 of paper no. 8 that Cheney clearly teaches the D/A conversion on multiple occasions, for example, in figure 2 and in column 6, Cheney teaches *digital-to-analog conversion of the video signal occurs prior to output 110 to the television system* and that Cheney clearly teaches an *A/D video decoder* that meets the claim limitation of "an analog to digital

converter unit" (See column 5-6 and 18) as well as a *D/A video encoder* that meets the claim limitation of "a digital to analog converter unit" (See column 5-6 and 18).

However, these explanations by the Examiner is pointing out the Applicant's earlier arguments, in that Cheney has far too many conversions and not in the precise points of the present invention and thereby reducing image quality in Cheney. It is not important whether simply a D/A converter is disclosed, but that the D/A converter must be disclosed as *arranged in the claim* according to MPEP §2131.

II. Withdrawal of Finality

In the previous response to paper number 6, the Applicant had asked the Examiner that further clarification by Examiner would be very helpful to the Applicant. Specifically and respectfully, the response stated that the Examiner must provide the completeness in the rejection under 37 C.F.R. §1.104(b) and (c) in formulating the rejection. As mentioned in 37CFR §1.104 (c)(2), "When a reference is complex or shows or describes inventions other than that claimed by the applicant, the particular part relied on must be designated as nearly as practicable." Concerning certain rejections, a string of passages were quoted without any particular reference to the particular parts being relied on. The particular parts relied upon were not mentioned and therefore it makes it difficult for the Applicant to respond to the Examiner's rejection. Quoting large portions of the text does not always take the place of showing the particular part especially when it is not entirely clear what particular parts are being referenced from the body of text quoted.

In paper no. 8, the Examiner did provide some clarification by mentioning some (but not all) of the particular parts being relied on in the remarks section (pages 7-11 of paper no. 8) of the Examiner's office action. The Applicant appreciates the Examiner's cooperation.

However, the Examiner made paper no. 8 final, which places the Applicant at a great disadvantage in prosecuting the present application, because only after paper no. 8 were some of the particular parts being relied upon were clear to the Applicant. This is especially important since as shown above, some of the parts were inconsistently applied.

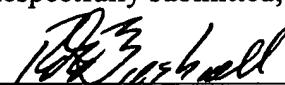
As mentioned in MPEP §706.07, " Before final rejection is in order a clear issue should be developed between the examiner and applicant. To bring the prosecution to as speedy conclusion as possible and at the same time to deal justly by both the applicant and the public...present practice does not sanction hasty and ill-considered final rejections. The applicant who is seeking to define his or her invention in claims that will give him or her the patent protection to which he or she is justly entitled should receive the cooperation of the examiner to that end, and not be prematurely cut off in the prosecution of his or her application....The examiner should never lose sight of the fact that in every case the applicant is entitled to a full and fair hearing, and that a clear issue between applicant and examiner should be developed, if possible, before appeal."

Therefore, we ask the Examiner to first, withdraw the finality of the rejection and second, provide the particular parts being relied on for all of the elements of the claims that were not already provided in paper no. 8. The Applicant would greatly appreciate the Examiner's cooperation on this regard in order to provide a full and fair hearing for the Applicant.

In view of the foregoing amendments and remarks, all claims are deemed to be allowable and this application is believed to be in condition to be passed to issue. If there are any questions, the examiner is asked to contact the applicant's attorney.

No fee is incurred by this Response. Should there be a deficiency in payment, or should other fees be incurred, the Commissioner is authorized to charge Deposit Account No. 02-4943 of Applicant's undersigned attorney in the amount of such fees.

Respectfully submitted,



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